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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,311	07/30/2003	Marc A. Viredaz	200208136-1	3682

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EXAMINER	
LAU, TUNG S	
ART UNIT	**PAPER NUMBER**
2863	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/632,311	VIREDAZ ET AL.	
	Examiner	Art Unit	
	Tung S. Lau	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/02/2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-12,14-19,21-24 and 26-28* is/are rejected.

7)☒ Claim(s) *7,13,20,25 and 29* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 8-12, 14-19, 21-24, and 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Patel et al. (US 2004/0264124, filed Jun. 30, 2003).

Regarding claim 1:

Patel et al. teaches determining a workload within a data center (par. 25); determining an amount of heat being generated as a function of the workload (par. 25); and activating each of a plurality of different types of cooling systems within the data center in an optimal fashion based on the heat being generated (par. 26, fig. 2, unit 222).

Regarding claim 8:

Patel et al. teaches means for determining a workload within a data center (par. 25); means for determining an amount of heat being generated as a function of the workload (par. 25); and means for activating each of a plurality

of different types of cooling systems within the data center in an optimal fashion based on the heat being generated (par. 26, fig. 2, unit 222).

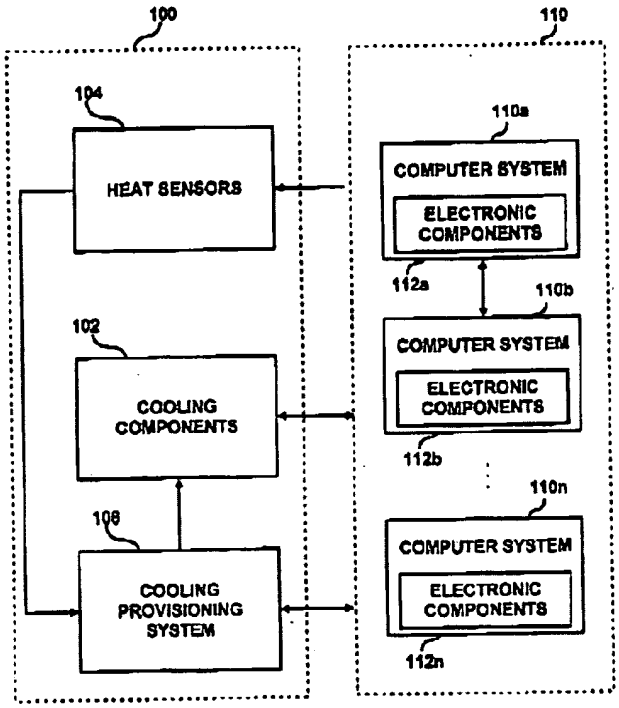

FIG. 1

Regarding claim 14:

Patel et al. teaches a global computer system (par. 4); a plurality of different cooling systems coupled to the global computer system (par. 4); a cooling system control module coupled to the global computer system and the plurality of different cooling systems wherein the cooling system control module includes logic for: determining a workload within the global computer system (par. 25); determining an amount of heat being generated as a function of the workload (par. 25); and activating each of a plurality of different types of cooling systems coupled to the global computer system in an optimal fashion

based on the amount of heat being generated (par. 26, fig. 2, unit 222).

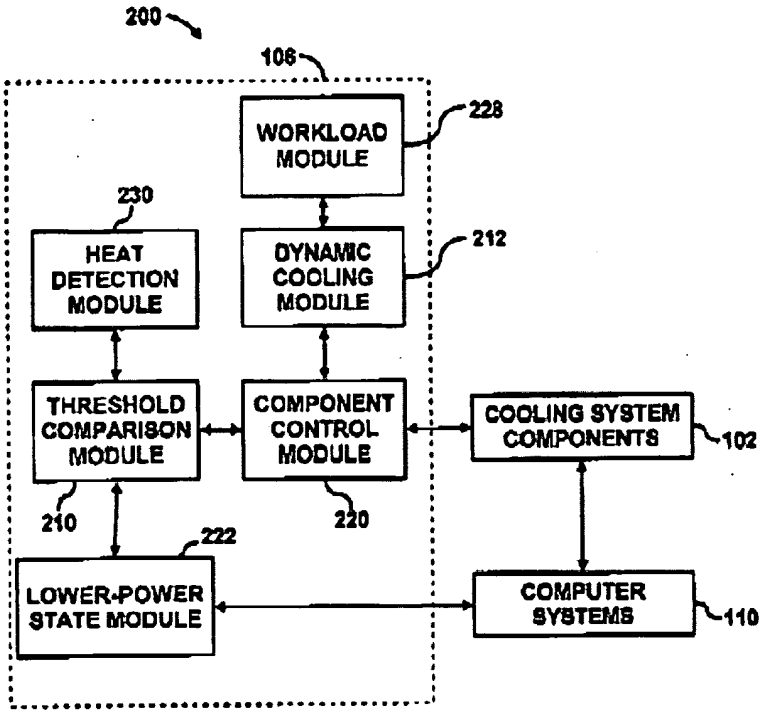

FIG. 2

Regarding claim 21:

Patel et al. teaches determining a workload within a global computer system (par. 25); determining an amount of heat being generated as a function of the workload (par. 25); and activating each of a plurality of different types of cooling systems coupled to the global computer system in an optimal fashion based on the amount of heat being generated (par. 26, fig. 2, unit 222).

Regarding claim 26:

Patel et al. teaches determination logic for: determining a workload within a

data center (par. 25); and determining an amount of heat being generated as a function of the workload (par. 25); and activation logic for activating each of a plurality of different types of cooling systems within the data center in an optimal fashion based on the amount of heat being generated (par. 26, fig. 2, unit 222).

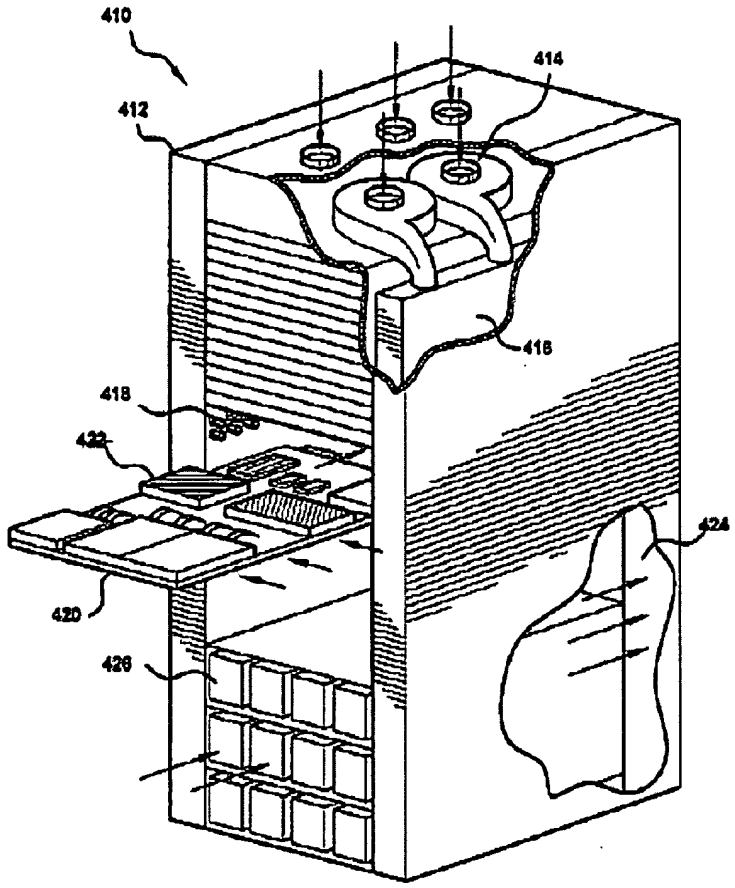

FIG. 4

Regarding claim 2, Patel et al. teaches that the optimal fashion is based on a cost associated with the activation of each of the plurality of different cooling systems (par. 26). **Regarding claim 3**, Patel et al. teaches

deactivating one or more of the activated plurality of different types of cooling systems within the data center based on a reduction in the amount of power being consumed by the workload (par. 67).

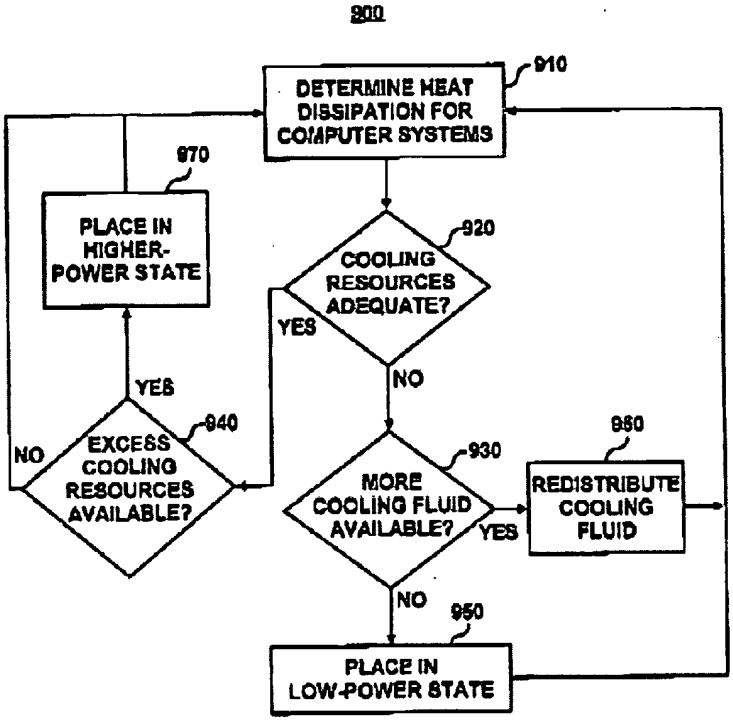

FIG. 9

Regarding claim 4, Patel et al. teaches that the amount of heat being generated is a function of an amount of power being consumed by the data center (par. 26). **Regarding claim 5**, Patel et al. teaches that the cooling systems has a cooling capability wherein the cooling capability is a function of an amount of heat that can be removed by the cooling system and the act of activating each of a plurality of different cooling systems in an optimal fashion further comprises; activating each of a plurality of different cooling systems

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based on the amount of heat that can be removed by each of the plurality of cooling systems (par. 28).

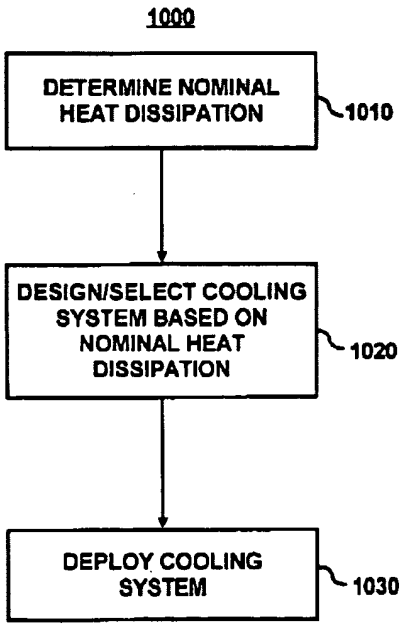

FIG. 10

Regarding claim 6, Patel et al. teaches that the plurality of cooling systems comprises an air-based cooling system, a liquid-based cooling system, and a gas-based cooling system (par. 4). **Regarding claim 9**, Patel et al. teaches means for deactivating one or more of the activated plurality of different types of cooling systems within the data center based on a reduction in the amount

air-based cooling system, a liquid-based cooling system, and a gas-based cooling system (par. 4).

of heat being generated (par. 67). **Regarding claim 10**, Patel et al. teaches that the amount of heat being generated is a function of an amount of power being consumed by the data center (par. 26). **Regarding claim 11**, Patel et

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al. teaches that the cooling systems has a cooling capability wherein the cooling capability is a function of an amount of heat that can be removed by the cooling system and the means for activating each of a plurality of different cooling systems in an optimal fashion further comprises; means for activating each of a plurality of different cooling systems based on the amount of heat that can be removed by each of the plurality of cooling systems (par. 28). **Regarding claim 12**, Patel et al. teaches that the plurality of cooling systems comprises an air-based cooling system (par 4), a liquid-based cooling (par 4), and a gas-based cooling system (par 4). **Regarding claim 15**, Patel et al. teaches that the optimal fashion is based on a cost associated with the activation of each of the plurality of different cooling systems (par. 26). **Regarding claim 16**, Patel et al. teaches deactivating one or more of the activated plurality of different types of cooling systems within the data center based on a reduction in the amount of heat being generated (par. 67). **Regarding claim 17**, Patel et al. teaches that an amount of heat being dissipated by the global computer system is a function of an amount of power being consumed by the global computer system (par. 26). **Regarding claim 18**, Patel et al. teaches that the plurality of cooling systems has a cooling capability wherein the cooling capability is a function of an amount of heat that can be removed by the cooling system and the act of activating each of a plurality of different cooling systems in an optimal fashion further comprises; activating each of a plurality of different cooling systems based on the amount

of heat that can be removed by each of the plurality of cooling systems (par. 28). **Regarding claim 19**, Patel et al. teaches that the plurality of cooling systems comprises an air-based cooling system, a liquid-based cooling system, and a gas-based cooling system (par. 4). **Regarding claim 22**, Patel et al. teaches that the optimal fashion is based on a cost associated with the activation of each of the plurality of different cooling systems (par. 26). **Regarding claim 23**, Patel et al. teaches deactivating one or more of the activated plurality of different types of cooling systems within the data center based on a reduction in the amount of heat being generated (par. 67). **Regarding claim 24**, Patel et al. teaches that the plurality of cooling systems comprises an air-based system, a liquid-based cooling system, and a gas-based cooling system (par. 4). **Regarding claim 27**, Patel et al. teaches deactivating one or more of the activated plurality of different types of cooling systems within the data center based on a reduction in the amount of heat being generated (par. 67). **Regarding claim 28**, Patel et al. teaches the plurality of different types of cooling systems comprise an air-based cooling system (par 4), a liquid-based cooling system and a gas-based cooling system (par 27).

Allowable Subject Matter

2. Claims 7, 13, 20, 25 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitation of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: prior art fail to teach:

Regarding claim 7:

activating the air-based cooling system before the liquid-based cooling system and the gas-based cooling system; and activating the liquid-based cooling system before the gas-based cooling system.

Regarding claim 13:

means for activating the air based cooling system before the liquid based cooling system and the gas based cooling system; and means for activating the liquid based cooling system before the gas based cooling system.

Regarding claim 20:

activating the air based cooling system before the liquid based cooling system and the gas based cooling system; and activating the liquid based cooling system before the gas based cooling system.

Regarding claim 25:

activating the air-based cooling system before the liquid-based cooling system and the gas-based cooling system; and activating the liquid-based cooling system before the gas-based cooling system.

Regarding claim 29:

activating the air-based cooling system before the liquid-based cooling system and the gas-based cooling system; and activating the liquid-based cooling system before the gas-based cooling system.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

3. Applicant's arguments filed 11/02/2006 have been fully considered but they are not persuasive.

A. Applicants argue in the arguments that the prior art does not show the 'activating each of a plurality of different types of cooling systems within a data center in an optimal fashion based on the heat being generated' (applicants Remarks section page 11, lines 20-22).

Patel describes 'activating each of a plurality of different types of cooling systems (par 25, fig. 2, unit 222) within a data center (fig. 4, unit 410) in an optimal fashion based on the heat being generated (par 26)'

The above reference section read on to the claim invention, reminds the applicants that prior art reference anticipates the subject of a claim when the reference discloses every feature of the claimed invention, either explicitly or inherently (see Hazani v. U.S. Int'l Trade Com'n, 126 F.3d 1473, 1477, 44

USPQ2d 1358, 1361 (Fed. Cir. 1997) and RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385,388 (Fed. Cir. 1984)); however, the law of anticipation does not require that the reference teach what the appellants are claiming, but only that the claims on appeal "read on" something disclosed in the reference (see Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781,789 (Fed. Cir. 1983).

B. Applicants continue to argue in the arguments that the prior art does not show 'activating each of a plurality of different types of cooling systems within a data center in an optimal fashion based on the heat being generated' (applicants Remarks section page 12, lines 3-6).

Patel describes 'activating each of a plurality of different types of cooling systems (par 26, fig. 2, unit 222, multiple fan and blower speed cooling depending on system head generated along with lower CPU speed to cool the system), within a data center (fig. 4, unit 410) in an optimal fashion based on the heat being generated (par 26, multiple fan speed cooling depending on system head generated)'

The applicants compare to the present invention to the above claim features (applicants Remarks section page 12, lines 29-20).

Reminds to the applicants although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Words in patent claims are given their ordinary meaning in the usage of the field of the invention, unless the text of the patent makes clear that a word was used with a special meaning; Phillips v. AWH Corp., *>415 F.3d 1303, 1313<, 75 USPQ2d 1321>, 1326< (Fed. Cir. 2005) (en banc).

Sunrace Roots Enter. Co. v. SRAM Corp., 336 F.3d 1298, 1302, 67 USPQ2d 1438, 1441 (Fed. Cir. 2003); Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc., 334 F.3d 1294, 1298 67 USPQ2d 1132, 1136 (Fed. Cir. 2003), and where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim. Toro Co. v. White Consolidated Industries Inc., 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999), See MPEP 2111 [R-5](III). In this case the applicans has fail to provide a specific meaning of the above claim words, so USPTO personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997).

C. Applicants continue to argue in the arguments that the prior art does not show 'the implementation of a plurality of different cooling system' (applicants Remarks section page 12-13, lines 33-2).

Patel describes 'the implementation of a plurality of different cooling system' in par 26, fig. 2, unit 222 (similar argument on above section).

D. Applicants continue to argue in the arguments that the prior art does not show

'optimal fashion based on a cost associated with the activation each of the plurality of different cooling system' (applicants Remarks section page 13, lines 5-7).

Patel describes 'optimal fashion based on a cost associated with the activation each of the plurality of different cooling system in par 26, fig. 2, unit 222 (different fan or blower speed depending on system heat along with lower CPU speed to cool the system), (similar to the above argument)'

E. Applicants continue to argue in the arguments that the prior art does not show 'implementation of a plurality of different cooling systems', (applicants Remarks section page 13, lines 14-15) 'the step of activating each of a plurality of different types of cooling systems within the data center in an optimal fashion based on the heat' (applicants Remarks section page 13, lines 15-18).

Patel describes 'implementation of a plurality of different cooling systems' in par 26 , fig. 2, unit 222 (different fan and blower speed along with lower CPU speed to cool the system).

Patel also describes 'the step of activating each of a plurality of different types of cooling systems within the data center in an optimal fashion based on the heat' in par 26 and fig. 2, unit 222 (using different fan speed and lower cpu speed to cool the system).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL

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